

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims in this application:

1-11 (cancelled)

12. (allowed) A hydroxyl-functional, water-dispersible polyester comprising the reaction product of:

(a) about 8 to about 16 mole percent of a polyester resin intermediate substantially free of unreacted difunctional sulfomonomer, comprising the reaction product of:

(i) about 75 to about 85 mole percent of a glycol, based on the total moles of (i) and (ii); and

(ii) about 15 to about 25 mole percent of a difunctional sulfomonomer, based on the total moles of (i) and (ii);

(b) about 35 to about 55 mole percent of at least one polyol; and

(c) about 30 to about 50 mole percent of a diacid.

13. (allowed) The hydroxyl-functional, water-dispersible polyester of claim 12, wherein the hydroxyl-functional, water-dispersible polyester has a hydroxyl number ranging from about 50 mg/KOH to about 200 mg/KOH and an acid number less than about 30 mg KOH/g.

14. (allowed) A process for preparing a hydroxyl-functional, water-dispersible polyester comprising the step of heating, with agitation, a combination of:

(a) about 8 to about 16 mole percent of a resin intermediate which is substantially free of unreacted difunctional sulfomonomer, comprising the reaction product of:

(i) about 75 to about 85 mole percent of a glycol, based on the total moles of (i) and (ii); and

(ii) about 15 to about 25 mole percent of a difunctional sulfomonomer, based on the total moles of (i) and (ii);

(b) about 35 to about 55 mole percent of at least one polyol; and

(c) about 30 to about 50 mole percent of a diacid component;

under conditions sufficient to produce a hydroxyl-functional, water-dispersible polyester having a hydroxyl number ranging from about 50 mg/KOH to about 200 mg/KOH and an acid number less than about 30 mg KOH/g.

15. (allowed) The process of claim 14, wherein component (a) is present in an amount ranging from about 10 to about 14 mole percent, component (b) is present in an amount ranging from about 40 to about 50 mole percent, and component (c) is present in an amount ranging from about 40 to about 46 mole percent.

16. (allowed) A zero-VOC, ambient-cure, organic-solvent-free dispersion comprising:

(a) about 45 to about 70 weight percent water; and

(b) about 30 to about 55 weight percent of a resin composition comprising:

(i) about 50 to about 90 weight percent of the hydroxyl-functional, water-dispersible polyester of claim 12; and

(ii) about 10 to about 50 weight percent crosslinking agent.

17. (allowed) The dispersion of claim 16, wherein the crosslinking agent is a hydrophilic isocyanate.

18. (allowed) An article coated by the coating composition of claim 16.

19. (new) The hydroxyl-functional, water-dispersible polyester of claim 12, wherein said glycol is selected from the group consisting of neopentyl glycol, 2-butyl-2-ethylpropanediol, 2,2,4-trimethyl-1,3-pentanediol, and hydroxypivalyl hydroxypivalate, and said difunctional sulfomonomer is selected from the group consisting of salts of 5-sulfoisophthalic acid, sulfophthalic acid, 4-sulfonaphthalene-2,7-dicarboxylic acid, dimethyl 5-sulfosioophthalic acid, and derivatives thereof.

20. (new) The hydroxyl-functional, water-dispersible polyester of claim 19, wherein said dicarboxylic sulfomonomer derivative is selected from the group consisting of 5-(sodiosulfo)-isophthalic acid, 5-(lithiosulfo)-isophthalic acid, and methyl esters thereof.

21. (new) The hydroxyl-functional, water-dispersible polyester of claim 12, wherein said glycol component is present in an amount ranging from about 78 mole percent to about 83 mole percent and said difunctional sulfomonomer is present in an amount ranging from greater than about 17 mole percent and up to about 22 mole percent.
22. (new) The hydroxyl-functional, water-dispersible polyester of claim 21, comprising about 81 mole percent of said glycol and about 19 mole percent of said difunctional sulfomonomer.
23. (new) The process of claim 14, wherein said glycol is selected from the group consisting of neopentyl glycol, 2-butyl-2-ethylpropanediol, 2,2,4-trimethyl-1,3-pentanediol, and hydroxypivalyl hydroxypivalate, and said difunctional sulfomonomer is selected from the group consisting of salts of 5-sulfoisophthalic acid, sulfophthalic acid, 4-sulfonaphthalene-2,7-dicarboxylic acid, dimethyl 5-sulfosiphthalic acid, and derivatives thereof.
24. (new) The process of claim 23, wherein said dicarboxylic sulfomonomer derivative is selected from the group consisting of 5-(sodiosulfo)-isophthalic acid, 5-(lithiosulfo)-isophthalic acid, and methyl esters thereof.
25. (new) The process of claim 14, wherein said glycol component is present in an amount ranging from about 78 mole percent to about 83 mole percent and said difunctional sulfomonomer is present in an amount ranging from greater than about 17 mole percent and up to about 22 mole percent.
26. (new) The process of claim 25, comprising about 81 mole percent of said glycol and about 19 mole percent of said difunctional sulfomonomer.